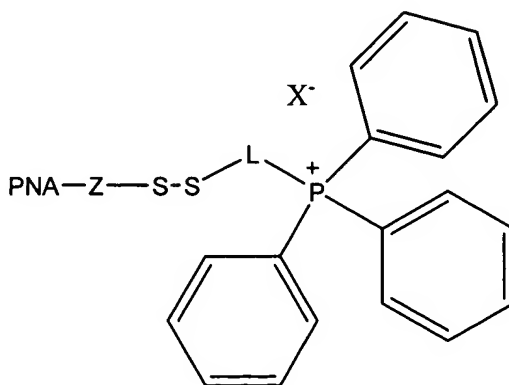


## IN THE CLAIMS

Claims 1-30 (canceled)

Claim 31 (new): A conjugate of formula I



wherein L is a linker group, S-Z is a thiol-containing attachment group,  $X^-$  is an optional anion, and PNA is a peptide nucleic acid.

Claim 32 (new): The conjugate according to claim 31 wherein L is  $(C_1 - C_{30})$  alkylene or substituted  $(C_1 - C_{30})$  alkylene.

Claim 33 (new): The conjugate according to claim 32 wherein L is  $(C_3 - C_{10})$  alkylene.

Claim 34 (new): The conjugate according to claim 33 wherein L is butylene.

Claim 35 (new): The conjugate according to claim 31 wherein Z is selected so that S-Z is a cysteinyl, homocysteinyl or an aminothiols compound attached to a suitable linking group for linking to the PNA residue.

Claim 36 (new): The conjugate according to claim 31 wherein the linking group for linking to the PNA residue is 8-amino-3,6-dioxanoic acid.

Claim 37 (new): The conjugate according to claim 31 wherein PNA is a PNA oligomer targeting either a unique region in both the mouse and human *PAX2* mRNA or mouse HNF4 $\alpha$ .

Claim 38 (new): The conjugate according to claim 37 wherein PNA is TTCACACCCCCGTGCC, GTCCCAGACGGT or lys-GTCCCAGACGGT.

Claim 39 (new): The conjugate according to claim 31 wherein the PNA is attached to a molecular tag or reporter molecule.

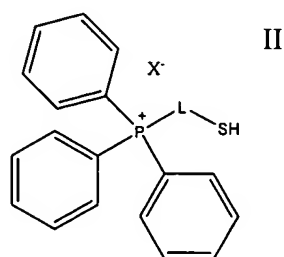
Claim 40 (new): The conjugate according to claim 39 wherein the molecular tag or reporter molecule is an affinity label.

Claim 41 (new): The conjugate according to claim 40 wherein the affinity label is streptavidin or biotin.

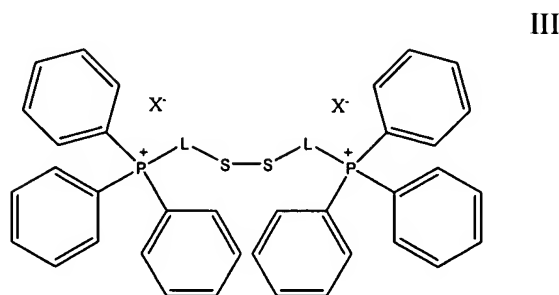
Claim 42 (new): The conjugate according to claim 39 wherein the reporter molecule is fluorescein.

Claim 43 (new): The method of synthesizing a TPP-PNA conjugate according to Formula I, as defined in claim 31, comprising:

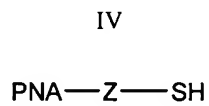
- (a) incubating a compound of Formula II, wherein L and X are defined as above,



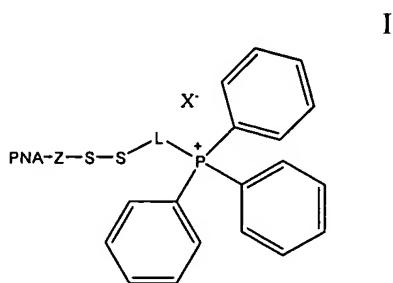
with an oxidant, to form the disulphide compound of Formula III



(b) reacting the compound of Formula III from step (a) with a compound of Formula IV



wherein Z and PNA are defined as above, and wherein the compound of Formula IV has been preincubated with a non-thiol containing reducing agent, to form the TPP-PNA conjugate of Formula I.



Claim 44 (new): The method according to claim 43 wherein L is (C<sub>1</sub> – C<sub>30</sub>) alkylene or substituted (C<sub>1</sub> – C<sub>30</sub>) alkylene.

Claim 45 (new): The method according to claim 44 wherein L is (C<sub>3</sub> – C<sub>10</sub>) alkylene.

Claim 46 (new): The method according to claim 45 wherein L is butylene.

Claim 47 (new): The method according to claim 43 wherein Z is selected so that S-Z is a cysteinyl, homocysteinyl or an aminothiol compound attached to a suitable linking group for linking to the PNA residue.

Claim 48 (new): The method according to claim 43 wherein the linking group for linking to the PNA residue is 8-amino-3,6-dioxanoic acid.

Claim 49 (new): The method according to claim 43 wherein PNA is a PNA oligomer targeting either a unique region in both the mouse and human *PAX2* mRNA or mouse HNF4 $\alpha$ .

Claim 50 (new): The method according to claim 49 wherein PNA is TTCACACCCCGTGCC, GTCCCAGACGGT or lys-GTCCCAGACGGT.

Claim 51 (new): The pharmaceutical composition comprising a therapeutically effective amount of a compound of Formula I, as defined in claim 31, in combination with one or more pharmaceutically acceptable excipients, carriers or diluents.

Claim 52 (new): The method of treating a patient with a disease or disorder that is susceptible to antisense therapy, which comprises the step of administering to said patient, a therapeutically effective amount of a compound of Formula I, as defined in claim 31.

Claim 53 (new): The method according to claim 52 wherein the disease or disorder is selected from the group comprising bacterial infections, viral infections, cancer, metabolic diseases and immunological disorders.

Claim 54 (new): The method according to claim 52 wherein the disease or disorder is selected from the group comprising HIV infection, hepatitis C infection; melanoma, pancreatic adnecarcinoma, acute myeloid leukemia, myeloma, small cell lung cancer, prostate cancer, ovarian carcinoma, breast cancer, glioma; hypercholesterolemia and amyloid light chain amyloidosis.

Claim 55 (new): The method of targeting PNA oligomers to non-mitochondrial sites or organelles within a cell, including the cytoplasm and/or the nucleus, using a compound of Formula I as defined in claim 31, said method comprising delivering the PNA oligomers across the plasma membrane, without promoting selective aggregation in the mitochondria of said cell.

Claim 56 (new): The method for modifying gene expression by administering a compound of Formula I as defined in claim 31, to a cell.